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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/039,578

04/22/2003

Thomas Ping Hua Lee

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7590

05/16/2006

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EXAMINER

COCKS, JOSIAH C

ART UNIT

PAPER NUMBER

3749

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,578

Applicant(s)

LEE, THOMAS PING HUA

Examiner

Josiah Cocks

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE filed 3/6/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☒ Claim(s) 7 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/6/2006 has been entered.

Reissue Applications

2. Applicant is reminded of the continuing obligation under 37 CFR 1.178(b), to timely apprise the Office of any prior or concurrent proceeding in which Patent No. 5,971,751 is or was involved. These proceedings would include interferences, reissues, reexaminations, and litigation.

Applicant is further reminded of the continuing obligation under 37 CFR 1.56, to timely apprise the Office of any information which is material to patentability of the claims under consideration in this reissue application.

These obligations rest with each individual associated with the filing and prosecution of this application for reissue. See also MPEP §§ 1404, 1442.01 and 1442.04.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,850,854 to Buck ("Buck") in view of U.S. Patent No. 5,059,852 to Meury ("Meury").

Buck discloses in the specification and figure 3 a piezoelectric lighter in the same field of endeavor as applicant's invention and similar to that described in applicant's claims 7 and 8. In particular, Buck shows a lighter including a fuel tank (82), a gas ejecting tip (93) communicating with the fuel tank, a piezoelectric unit (92) having an ignition tip (78) connected thereto capable of producing a spark to ignite fuel released from the gas ejecting tip, and a thumb push cap (86) capable of activating the piezoelectric unit. Buck further discloses what is considered a safety apparatus that includes a spring (unnumbered spring to the right of pivot 84 in Fig. 3) that is positioned to engage an underside of the thumb push cap to impede movement of the cap and provide an upward force that would be additional to any upward force provided by the piezoelectric unit. Though the spring illustrated in Fig. 3 of Buck is not described, this spring functions for the same purpose, for instance, as spring (50) shown in Figure 2. The purpose of this spring (50) is to provide a force acting on a lever of a pivot to return a valve to a closed position (see Buck, col. 3, lines 11-19). A person of ordinary skill in the art would recognize that

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the unnumbered spring shown in Fig. 3 of Buck provides a force to the lever arm of pivot (84), which in this case results in an upward force applied to this lever arm. As noted above, since the lever arm is in contact with the numbered shaft portion of the thumb push cap (86), the spring is applying an upward force to this cap. In applying this force to the cap, the spring is necessarily providing additional resistance to depression of the cap and thereby impedes movement of the cap.

In regard to the limitation that the piezoelectric unit includes a mechanism for providing an upward force for urging the thumb push cap into an upper normal position, it is inherent that the plunger (91) of piezoelectric unit (92) of Buck would be urged upward by a mechanism internal to the piezoelectric unit as such a mechanism is necessary for the operation of the unit. Evidence of this inherent feature is found in applicant's response filed 5/11/2005 in which applicant admitted that such a means is inherently present in Buck (see page 8, lines 5-14). Further, Meury is also cited here to provide evidence of this inherent feature. Meury shows a description of the structure and operation of a piezoelectric unit that is identical to the piezoelectric unit of Buck. Referring to Meury, as is well understood in the art that the conventional piezoelectric unit of a lighter includes at least one internal spring (at least 13), termed in this reference as a back spring, that applies an upward returning force to hammer/actuating member (8) once the body/actuating member has been depressed to produce a spark (see at least Meury, col. 1, lines 26-36 and col. 4, lines 30-35).

Buck does not disclose that the safety apparatus includes both a spring and a deformable resistance piece that is coaxial to the spring. However, Buck clearly contemplates that the spring

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providing a returning force to the valve of the fuel tank may include additional springs. The following is a excerpt from Buck:

“The spring 50 which returns the fuel valve to a closed position may also be assisted by one or more additional springs 51....” (see Buck, col. 3, lines 16-18).

As noted above, the description of the operation of spring (50) is considered to be applicable to the unnumbered spring shown in Figure 3 of Buck.

Meury teaches a piezoelectric lighter in the same field of endeavor as both applicant's invention and Buck. In Meury, a component of the lighter includes a first spring (13) surrounded and aided by a coaxial spring (17) (see Figs. 1 and 3, and col. 4, lines 36-38). Applicant's recitation of a “deformable resistance piece” is not considered to distinguish over a second spring. The term “deform” is defined by Merriam Webster's Collegiate Dictionary, Tenth Edition (1996) as “to alter the shape of by stress.” A spring operates as a resistance device that compresses such that its shape is altered by the application of a force or stress. Accordingly, a spring is considered a “deformable resistance piece” as recited.

Therefore, in regard to claims 7 and 8, though this spring arrangement in Meury is not functioning to operate a valve as in Buck, this is considered a clear teaching that it would be obvious to a person of ordinary skill in the art to modify Buck to provide the additional assisting spring to the valve spring (unnumbered spring in Fig. 3) contemplated by Buck (see col. 3, lines 16-18), in the coaxial relationship of springs (13 and 17) of Meury. This second coaxial spring is recognized in the art to desirably aid the first spring (see Meury, col. 4, lines 36-38). Accordingly, this known coaxial arrangement of springs would desirably provide the “additional assisting spring” to aid the valve spring of Buck.

Allowable Subject Matter

5. As previously indicated, claims 1-6 are allowable.

Response to Arguments

6. Applicant's arguments with respect to claims 7 and 8 have been considered but are moot in view of the new ground(s) of rejection. Applicant has argued that:

“the mere fact that the unnumbered spring in Buck provides incidental resistance is not enough to support the contention that one of skill in the art would have recognized the particular combination of deformable resistance piece and spring as a safety apparatus.” (p. 12 of the 3/6/2006 response)

In response the examiner notes that the prior art of Buck and Meury clearly suggests a coaxial spring arrangement that provides an upward force to a pivotal valve lever in order to close the valve. As noted above this coaxial spring arrangement is considered the deformable resistance piece and spring arrangement recited by applicant. Further, as noted above, this arrangement would be mounted such that an upward force is applied to the thumb push cap of Buck. That this upward force provides a child safety feature does not patentably distinguish applicant's invention. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See Ex parte Obiaya, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). The additional child safety resistance would flow naturally from the resistance provided by the coaxial spring arrangement taught by Buck and Meury.

Accordingly, applicant's claims 7 and 8 do not distinguish over the prior art of record.

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Conclusion


7. This action is made non-final. A THREE (3) MONTH shortened statutory period for reply has been set. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Josiah Cocks whose telephone number is (571) 272-4874. The examiner can normally be reached on weekdays from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg, can be reached at (571) 272-4828. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jcc
April 25, 2006


JOSIAH COCKS
PRIMARY EXAMINER
ART UNIT 3749